

*Amendments to existing claims:*

1. (Cancelled)
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28. (Cancelled)
29. (Cancelled)
30. (Cancelled)
31. (New) A recombinant herpes simplex virus (HSV) comprising a rep gene, which comprises a promoter operatively linked to a polynucleotide encoding an adeno-associated virus (AAV) rep polypeptide, wherein the rep polypeptide is conditionally active.
32. (New) The recombinant HSV of claim 31, wherein the rep polypeptide is obtained from an AAV rep78, rep68, rep62, or rep40 protein.
33. (New) The recombinant HSV of claim 31, wherein the rep polypeptide is an AAV rep78 protein.

34. (New) The recombinant HSV of claim 31, wherein the rep polypeptide is an AAV rep68 protein.

35. (New) The recombinant HSV of claim 31, wherein the rep polypeptide is an AAV rep62 protein.

36. (New) The recombinant HSV of claim 31, wherein the rep polypeptide is an AAV rep40 protein.

37. (New) The recombinant HSV of claim 31, further comprising an Intermediate Terminal Repeat (ITR) cassette, which comprises two AAV-derived ITR sequences flanking a non-ITR polynucleotide.

38. (New) The recombinant HSV of claim 37, wherein the rep gene is not within the ITR cassette.

39. (New) The recombinant HSV of claim 31, further comprising a cap gene comprising a promoter operatively linked to a polynucleotide sequence encoding an AAV cap polypeptide.

40. (New) The recombinant HSV of claim 39, further comprising an ITR cassette, which comprises two AAV-derived ITR sequences flanking a non-ITR polynucleotide.

41. (New) The recombinant HSV of claim 40, wherein the rep gene is not within the AAV ITR cassette.

42. (New) The recombinant HSV of claim 31, which is deficient for at least one essential HSV.

43. (New) The recombinant HSV of claim 42, wherein the essential HSV gene is an immediate early, early or late HSV gene.

44. (New) The recombinant HSV of claim 42, wherein the essential HSV gene is ICP27.

45. (New) The recombinant HSV of claim 31, wherein the promoter is conditionally active.

46. (New) The recombinant HSV of claim 31, wherein the promoter is a tissue specific promoter.

47. (New) The recombinant HSV of claim 31, wherein the promoter is an HSV promoter.

48. (New) The recombinant HSV of claim 31, which is replication incompetent in cells other than packaging cells.

49. (New) A viral stock comprising the recombinant HSV of claim 31.

50. (New) A composition comprising the recombinant HSV of claim 31 and a physiologically-acceptable carrier.

51. (New) The composition of claim 50, which further comprises an ITR cassette.

52. (New) The composition of claim 51, wherein the ITR cassette is within an HSV vector.

53. (New) The composition of claim 50, further comprising a second HSV that comprises an ITR cassette.

54. (New) A recombinant herpes simplex virus (HSV) comprising a rep gene, which comprises a promoter operatively linked to a polynucleotide encoding an adeno-associated virus (AAV) rep polypeptide, a cap gene, which comprises a promoter operatively linked to a polynucleotide sequence encoding an AAV cap polypeptide, and an Intermediate Terminal Cassette (ITR) cassette, which comprises two AAV-derived ITR sequences flanking a non-ITR polynucleotide, wherein the rep polypeptide or the promoter is conditionally active.

55. (New) The recombinant HSV of claim 54, wherein the rep polypeptide is obtained from an AAV rep78, rep68, rep62, or rep40 protein.

56. (New) The recombinant HSV of claim 54, wherein the rep polypeptide is an AAV rep78 protein.

57. (New) The recombinant HSV of claim 54, wherein the rep polypeptide is an AAV rep68 protein.

58. (New) The recombinant HSV of claim 54, wherein the rep polypeptide is an AAV rep62 protein.

59. (New) The recombinant HSV of claim 54, wherein the rep polypeptide is an AAV rep40 protein.

60. (New) The recombinant HSV of claim 54, wherein the rep gene is not within the AAV ITR cassette.

61. (New) The recombinant HSV of claim 54, which is deficient for at least one essential HSV gene.

62. (New) The recombinant HSV of claim 61, wherein the essential HSV gene is an immediate early, early or late HSV gene.

63. (New) The recombinant HSV of claim 61, wherein the essential HSV gene is ICP27.

64. (New) The recombinant HSV of claim 54, wherein the promoter is conditionally active.

65. (New) The recombinant HSV of claim 54, wherein the promoter is a tissue specific promoter.

66. (New) The recombinant HSV of claim 54, wherein the promoter is an HSV promoter.

67. (New) The recombinant HSV of claim 54, which is replication incompetent in cells other than packaging cells.

68. (New) A viral stock comprising the recombinant HSV of claim 54.

69. (New) A composition comprising the recombinant HSV of claim 54 and a physiologically-acceptable carrier.

70. (New) The composition of claim 69, which further comprises an ITR cassette.

71. (New) The composition of claim 70, wherein the ITR cassette is within an HSV vector.

72. (New) The composition of claim 69, further comprising a second HSV that comprises an ITR cassette.

73. (New) A recombinant herpes simplex virus (HSV) comprising a rep gene, which comprises a promoter operatively linked to a polynucleotide encoding an adeno-associated virus (AAV) rep polypeptide, wherein the rep polypeptide or the promoter is conditionally active, and wherein the promoter is an inducible promoter.

74. (New) A recombinant herpes simplex virus (HSV) comprising a rep gene, which comprises a promoter operatively linked to a polynucleotide encoding an adeno-associated virus (AAV) rep polypeptide, wherein the rep polypeptide is active at a first permissive temperature, and inactive at a second nonpermissive temperature.



PATENT  
Attorney Docket No.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Glorioso et al.

Application No. 09/506,301

Art Unit: 1636

Examiner: G. Leffers, Jr.

Filed: February 17, 2000

For: ADENO-ASSOCIATED VIRAL  
GENE-TRANSFER VECTOR  
SYSTEM

**PENDING CLAIMS AFTER AMENDMENTS  
MADE IN RESPONSE TO OFFICE ACTION DATED JUNE 5, 2002**

31. A recombinant herpes simplex virus (HSV) comprising a rep gene, which comprises a promoter operatively linked to a polynucleotide encoding an adeno-associated virus (AAV) rep polypeptide, wherein the rep polypeptide is conditionally active.

32. The recombinant HSV of claim 31, wherein the rep polypeptide is obtained from an AAV rep78, rep68, rep62, or rep40 protein.

33. The recombinant HSV of claim 31, wherein the rep polypeptide is an AAV rep78 protein.

34. The recombinant HSV of claim 31, wherein the rep polypeptide is an AAV rep68 protein.

35. The recombinant HSV of claim 31, wherein the rep polypeptide is an AAV rep62 protein.

36. The recombinant HSV of claim 31, wherein the rep polypeptide is an AAV rep40 protein.

37. The recombinant HSV of claim 31, further comprising an Intermediate Terminal Repeat (ITR) cassette, which comprises two AAV-derived ITR sequences flanking a non-ITR polynucleotide.

38. The recombinant HSV of claim 37, wherein the rep gene is not within the ITR cassette.

39. The recombinant HSV of claim 31, further comprising a cap gene comprising a promoter operatively linked to a polynucleotide sequence encoding an AAV cap polypeptide.

40. The recombinant HSV of claim 39, further comprising an ITR cassette, which comprises two AAV-derived ITR sequences flanking a non-ITR polynucleotide.

41. The recombinant HSV of claim 40, wherein the rep gene is not within the AAV ITR cassette.
42. The recombinant HSV of claim 31, which is deficient for at least one essential HSV.
43. The recombinant HSV of claim 42, wherein the essential HSV gene is an immediate early, early or late HSV gene.
44. The recombinant HSV of claim 42, wherein the essential HSV gene is ICP27.
45. The recombinant HSV of claim 31, wherein the promoter is conditionally active.
46. The recombinant HSV of claim 31, wherein the promoter is a tissue specific promoter.
47. The recombinant HSV of claim 31, wherein the promoter is an HSV promoter.
48. The recombinant HSV of claim 31, which is replication incompetent in cells other than packaging cells.
49. A viral stock comprising the recombinant HSV of claim 31.
50. A composition comprising the recombinant HSV of claim 31 and a physiologically-acceptable carrier.
51. The composition of claim 50, which further comprises an ITR cassette.
52. The composition of claim 51, wherein the ITR cassette is within an HSV vector.
53. The composition of claim 50, further comprising a second HSV that comprises an ITR cassette.
54. A recombinant herpes simplex virus (HSV) comprising a rep gene, which comprises a promoter operatively linked to a polynucleotide encoding an adeno-associated virus (AAV) rep polypeptide, a cap gene, which comprises a promoter operatively linked to a polynucleotide sequence encoding an AAV cap polypeptide, and an Intermediate Terminal Cassette (ITR) cassette, which comprises two AAV-derived ITR sequences flanking a non-ITR polynucleotide, wherein the rep polypeptide or the promoter is conditionally active.
55. The recombinant HSV of claim 54, wherein the rep polypeptide is obtained from an AAV rep78, rep68, rep62, or rep40 protein.
56. The recombinant HSV of claim 54, wherein the rep polypeptide is an AAV rep78 protein.
57. The recombinant HSV of claim 54, wherein the rep polypeptide is an AAV rep68 protein.

58. The recombinant HSV of claim 54, wherein the rep polypeptide is an AAV rep62 protein.

59. The recombinant HSV of claim 54, wherein the rep polypeptide is an AAV rep40 protein.

60. The recombinant HSV of claim 54, wherein the rep gene is not within the AAV ITR cassette.

61. The recombinant HSV of claim 54, which is deficient for at least one essential HSV gene.

62. The recombinant HSV of claim 61, wherein the essential HSV gene is an immediate early, early or late HSV gene.

63. The recombinant HSV of claim 61, wherein the essential HSV gene is ICP27.

64. The recombinant HSV of claim 54, wherein the promoter is conditionally active.

65. The recombinant HSV of claim 54, wherein the promoter is a tissue specific promoter.

66. The recombinant HSV of claim 54, wherein the promoter is an HSV promoter.

67. The recombinant HSV of claim 54, which is replication incompetent in cells other than packaging cells.

68. A viral stock comprising the recombinant HSV of claim 54.

69. A composition comprising the recombinant HSV of claim 54 and a physiologically-acceptable carrier.

70. The composition of claim 69, which further comprises an ITR cassette.

71. The composition of claim 70, wherein the ITR cassette is within an HSV vector.

72. The composition of claim 69, further comprising a second HSV that comprises an ITR cassette.

73. A recombinant herpes simplex virus (HSV) comprising a rep gene, which comprises a promoter operatively linked to a polynucleotide encoding an adeno-associated virus (AAV) rep polypeptide, wherein the rep polypeptide or the promoter is conditionally active, and wherein the promoter is an inducible promoter.

74. A recombinant herpes simplex virus (HSV) comprising a rep gene, which comprises a promoter operatively linked to a polynucleotide encoding an adeno-associated virus (AAV) rep polypeptide, wherein the rep polypeptide is active at a first permissive temperature, and inactive at a second nonpermissive temperature.